



Year 5 Knowledge Organiser— Marble Run

Vocabulary

Key Questions

Key Designers

George Rhoads

27 January 1926—present

Key Vocabulary	Definition
Trajectory	the path followed by a projectile flying or an object moving under the action of given forces.
Kinetic	relating to or resulting from motion.
Incline	Have a tendency to do something
Velocity	the speed of something in a given direction.
Reinforce	strengthen or support (an object or substance), especially with additional material.
Viability	ability to work successfully.

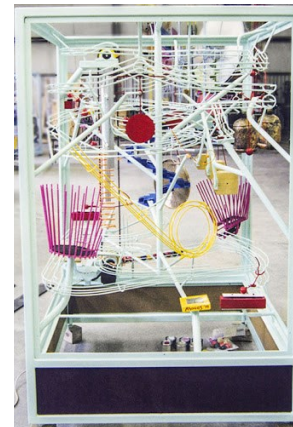
How could you increase the stability of the marble run?

What difficulties have you faced?

What do you predict will happen to the trajectory of the marble with this twist/drop?



Work Examples



Key Facts
George Rhoads is a painter, origami artist, and sculptor best known for his "audiokinetic" ball machine sculptures.
When George Rhoads was a little boy, he took clocks apart to see how they worked. By 10, he was making calendar clocks of his own out of wood, and metal and also made barometers and a Ferris wheel.
Rhoads began inventing ideas for games and toys. The first toy he sold was the Cliff Hanger. Shortly after, he began experimenting with metal sculptures that moved and made musical sounds. The earliest ones were operated with hand cranks and turned gears that rang bells.
Rhoads added motor-driven chains with curved prongs that carried balls to the top of the sculptures and released them to the power of gravity. The first ball machines were single-track, hand-powered devices.

Timeline

David Gottlieb 15th Dec 1900— unknown	Robin Day 1915 - 2010	Philip Treacey 26 May 1967 - present	Angela Hartnett September 1968—present	Mars Curiosity Rover Engineering Team 2004 -2011	George Rhoads 1926-present
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